

Executive Order 2005-05

All Executive Branch agencies shall implement to the extent practicable the following standards in all new state-funded facilities:

LEED Standard: *All state funded buildings constructed after this date shall meet at least the “silver” Leadership in Energy and Environmental Design standard*

Leadership in Energy Efficient Design (LEED) is developed by United States Green Building Council to address energy efficiency and sustainability in new construction projects or retrofits. The schools need to comply with ‘LEED for New Construction’ (LEED-NC) or ‘LEED for Schools’ to be LEED certified. USGBC is publishing LEED for Schools in a near future.

Under LEED, the performance is measured in terms of points. There are six main categories:

1. Sustainable Sites with 14 Points and 1 prerequisites
2. Energy Efficiency with 17 points and 3 prerequisites
3. Water Efficiency with 5 points
4. Indoor Air Quality with 15 points and 2 prerequisites
5. Material Use with 13 Points and 1 prerequisites
6. Innovation in Design with 5 points

There are four certification levels. The project needs to meet all prerequisites, and satisfies a number of points to achieve each level:

1. Basic Level– 26 to 32 Points
2. Silver Level – 33 to 38 Points
3. Gold Level – 39 to 51 Points
4. Platinum Level– 52 to 69 Points

LEED Schools n Arizona:

- 1) Desert Edge High School – **LEED Silver Certified**
Agua Fria High School District, Goodyear, Arizona
No. of students: 1,600
Grades Served: 9-12
Area of the building: 218,783 sf

Key Energy Efficiency and Sustainability features of Desert Edge High School by LEED Categories:

- Parking for Alternative Transportation (Bike and Carpool)
- Low water use Landscaping/ Desert Landscaping
- Daylighting
- Use of shading devices/overhangs
- Waterless urinals
- Photo sensors/ Occupancy sensors
- Multiple light switching
- Thermostats that allow temperature adjustments of 2 degrees up or down
- CO2 sensors
- Carpets with recycled material
- Gym lighting with compact fluorescent lamps.
- Chillers with R-134a – environmental friendly HFC refrigerant
- Energy efficient chillers
- Frame Heat exchanger/VSD
- Meter to track electricity consumption
- Entryway grate
- Sports lighting fixtures with shields to limit night pollution

Key Achievements:

- 38% water savings as compared to Energy Policy Act of 1992
- 28% more energy efficient than ASHRAE 90.1-1999
- 85% of construction waste diverted from landfill
- Healthy learning environment